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(71) Applicant (*for all designated States except US*): U.S. MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES [US/US]; Department of the Army, 504 Scott Street, Frederick, MD 21702 (US).

(72) Inventors; and (75) Inventors/Applicants (*for US only*): SCHMIDT, James, J. [US/US]; 5819 Catoctin Vista Drive, Mt. Airy, MD 21771 (US). STAFFORD, Robert, G. [US/US]; 112 W. 5th Avenue, Ranson, WV 25438 (US).

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(54) Title: HIGH THROUGHPUT ASSAYS FOR THE PROTEOLYTIC ACTIVITIES OF CLOSTRIDIAL NEUROTOXINS

(57) Abstract: In this application is described substrates for high-throughput assays of clostridial neurotoxin proteolytic activities. Two types of substrates are described for use in assays for the proteolytic activities of clostridial neurotoxins: (1) modified peptides or proteins that can serve as FRET substrates and (2) modified peptides or proteins that can serve as immobilized substrates. In both types a fluorescent molecule is present in the substrate, eliminating the requirement for the addition of a fluorogenic reagent. The assays described can be readily adapted for use in automated or robotic systems.